

## **Overview: Transportation Management Center (TMC) Pooled-Fund Study**

### **Purpose and Goal of TMC Pooled-Fund Study:**

The TMC Pooled-Fund Study is intended to provide a forum for participants to identify and address operational and human centered issues that are common among agencies that manage and operate TMCs. The study will focus on issues facing traffic signal control system, freeway management system, or multi-modal TMCs. The purpose of the study is to initiate projects that address operational and human-centered issues. The goal of the Study is to assemble regional, state, and local traffic management agencies, in concert with the FHWA, to:

1. Identify operational and human-centered issues common among TMC operators and managers.
2. Suggest approaches to address identified issues.
3. Initiate and monitor projects to implement the approaches.
4. Disseminate results.
5. Assist in solution deployment.

### **Membership:**

Membership consists of the FHWA and states that have committed funding to the TMC Pooled-Fund Study. States may become participants at anytime during the year by committing funds at a level deemed appropriate by the members. FHWA representation on the TMC Pooled-Fund Study includes the Operations Office of Travel Management (voting member); Office of Research, Development, and Technology (voting); and USDOT ITS Joint Program Office (non-voting). Current members are the FHWA and the following 14 departments of transportation:

- |                        |            |                |
|------------------------|------------|----------------|
| - Arizona              | - Florida  | - Nevada       |
| - California           | - Illinois | - New York     |
| - Connecticut          | - Indiana  | - Rhode Island |
| - Delaware             | - Kansas   | - Virginia     |
| - District of Columbia | - Missouri |                |

Additional public agencies, or other interests that are responsible for the management and operation of portions of the surface transportation system, are also welcome to join the Study. These agencies and interests may include cities, counties, toll authorities, turnpike authorities, port authorities, and corridor coalitions. The current members will consider non-state members for acceptance on a case-by-case basis once the letter of interest and proposed commitment of funding is received by FHWA. Membership in the TMC PFS provides the state DOT (or other agency) direct input into the identification, selection, and development of projects.

### **Process to identify and select projects:**

The members meet annually to review progress on current projects, and to identify and select new projects. Projects are selected based on the critical needs that are identified through an iterative process that involves TMC PFS member input, state-of-practice reviews, and issues identified by professional organizations. Members review, comment and prioritize TMC needs according to the needs and perspectives of the organizations they represent.

Based on the prioritized list of critical needs, project proposals are developed for further consideration and review by members in advance of the annual meeting. At the annual meeting these projects are reviewed, discussed, and revised by the members. An iterative process is followed to rank and select projects, based on the discussion and consensus that evolves. Consensus building techniques are used to ensure that the perceived needs of all groups are accommodated to the extent possible.

The highest priority projects are reviewed and are revised further by the members. These revised project proposals are rank-ordered in the same manner described above. Based on resources that are available to the Study for that year, the ranked projects are reviewed and discussed by the members to reach a consensus. Project groups that consist of member representatives are formed to guide the development of project proposals after this meeting. This involvement includes any further revision of the project scope, clarification of project objectives, development of the statement of work, contractor selection, technical review and direction throughout project development and execution.

### Current projects

On June 6 and 7, 2000, the members of the Pooled-Fund Study discussed potential projects and selected projects to pursue immediately. The projects selected were:

1. TMC Operator Requirements Matrix.
2. Guidelines for Changeable Message Sign Messaging.
3. Transportation Management System Maintenance Concept and Plans.
4. Configuration Management for Transportation Management Systems.
5. Creation and maintenance of a TMC web site.

**TMC Operator Requirements Matrix:** The goal of this project is to develop a matrix that relates operator knowledge, skill, and ability requirements to TMC functions. Because not all TMCs perform the same functions, the matrix will trace requirements to the potential tasks that operators may perform based on possible TMC functions. Agencies could use the matrix and other information developed by this project to determine and prepare job classifications, recruitment and training requirements, and define career paths for operators.

**Guidelines for Changeable Message Sign Messaging:** This project will document the available empirical and analytical evidence that can be used by agencies to support policies, procedures, practices, and messages associated with the operation of changeable message signs (CMS). In particular, the project will document the empirical evidence that relates CMS messaging to driver behavior, traffic, travel flow, and safety. This documentation is intended to support agencies in the development of policies, procedures, and practices to develop and display messages on CMS. The documentation is also intended identify the issues, form the basis, and provide recommendations for input into the appropriate national standards processes related to CMS (e.g., Manual of Uniform Traffic Control Devices).

**Transportation Management System Maintenance Concept and Plans:** Maintenance is an activity that is required throughout the TMC life cycle to ensure that the system operates as originally planned and designed. Current technical resources focus on the day-to-day maintenance management issues and tasks associated with specific system devices. This project will develop a technical document that will address

how to plan, develop, and support a maintenance program to meet the requirements of a TMC. Issues to be addressed include: (1) types of maintenance programs, (2) strategic plan and components, and (3) policies, necessary resources, services, and procedures. The project will also address how to integrate, consider, and evaluate the appropriate maintenance issues and life cycle needs throughout the planning, design, implementation, and continued evolution of a TMC.

**Configuration Management for Transportation Management Systems:** This study will document the range of issues and information to consider in developing, implementing, and integrating the appropriate configuration management (CM) policies, procedures, tools, and processes into the day-to-day activities of an agency. The project will develop a technical resource document that will provide guidance on how to develop a CM program and associated plan, control processes, job and/or position requirements, training, tools, accounting system, and how to apply these throughout the life cycle of a system. This project will also identify the potential CM issues to consider when integrating and sharing of information between multiple agencies and interests within a region or state.

**Pooled-Fund Study Web Site:** This project will provide the resources to support the operation of a web site that will facilitate the interaction, sharing, and warehousing of TMC information. The site will be accessible to all public agencies and TMC interests in the country. The ITE TMC Committee will provide direction and leadership to the continued evolution of this site. FHWA will provide day-to-day management and operational support of this site. This project will also include the operation of a second site that will support the activities of this Study.

#### Program administration

As part of its contribution to the TMC Pooled-Fund Study, the FHWA Research, Development, and Technology Office and the Operations Office of Travel Management provide the staff resources for program leadership, technical support, and project management. Among other things, the FHWA prepares project plans, budgets, and milestones for review and comment by the members. Contract solicitations, when necessary, will be issued by the FHWA. The members may elect to participate in proposal review and contractor selection. The project groups participate in the review of contract deliverables.

#### Governance and charter

A charter, ratified by the members, governs the following aspects of the TMC Pooled-Fund Study: Membership; project selection; project management, coordination, and solicitation; policies and procedures; fiscal management; and overall TMC PFS management. Because the charter may require updates as new issues are identified, a provision for amendment of the charter by the members is provided. The complete TMC PFS charter is available upon request.

#### FHWA contacts

For additional information on the TMC PFS contact Jon Obenberger at (202) 366-2221 ([jon.obenberger@fhwa.dot.gov](mailto:jon.obenberger@fhwa.dot.gov)), or Tom Granda at (202) 493-3365 ([thomas.granda@fhwa.dot.gov](mailto:thomas.granda@fhwa.dot.gov)). To request documents or material such as the TMC PFS charter, project descriptions, or the TMC PFS commitment form, contact Vaughan Inman at (202) 493-3380 ([vaughan.inman@fhwa.dot.gov](mailto:vaughan.inman@fhwa.dot.gov)).